the journal of steroid biochemistry

editors-in-chief

J. R. PASQUALINI and R. SCHOLLER

Volume Contents,
Subject and Author Index (July–December 1988)

Volume 31
1988

Pergamon Press

Oxford New York Beijing Frankfurt São Paulo Sydney Tokyo Toronto

EDITORS-IN-CHIEF

J. R. PASQUALINI and R. SCHOLLER,
Foundation for Hormone Research,
26 Boulevard Brune, 75014-Paris, France

ASSOCIATE EDITORS

H. ADLERCREUTZ, Helsinki, Finland
M. BEATO, Marburg/Lahn, F.R.G.
J. CRABBÉ, Brussels, Belgium
E. GURPIDE, New York, U.S.A.
J-Å. GUSTAFSSON, Huddinge, Sweden
E. V. JENSEN, Zurich, Switzerland
A. E. KELLIE, London, England
M. E. LIPPMAN, Bethesda, MD, U.S.A.
L. MARTINI, Milan, Italy
A. MUNCK, Hanover, NH, U.S.A.
B. W. O'MALLEY, Houston, TX, U.S.A.
D. O. TOFT, Rochester, MN, U.S.A.

CORRESPONDING EDITORS

A. AAKVAAG, Bergen, Norway
S. ANANCHENKO, Moscow, U.S.S.R.
F. AURICCHIO, Naples, Italy
P. L. BALLARD, San Francisco, U.S.A.
P. A. BELL, East Hanover, U.S.A.
E. W. BERGINK, Oss, The Netherlands
J. BLAQUIER, Buenos Aires, Argentina
R. BOUILLON, Leuven, Belgium
S. BOURGEOIS, San Diego, U.S.A.
A. BRODIE, Baltimore, U.S.A.
K. J. CATT, Bethesda, U.S.A.
L. CEDARD, Paris, France
J. A. CIDLOWSKI, Chapel Hill, U.S.A.
J. H. CLARK, Houston, U.S.A.
G. DAXENBICHLER, Innsbruck, Austria
L. DEHENNIN, Fresnes, France
E. R. DESOMBRE, Chicago, U.S.A.
M. L. DUFAU, Bethesda, U.S.A.
H. A. ERIKSSON, Stockholm, Sweden
J. FISHMAN, New York, U.S.A.
K. FOTHERBY, London, England
J. W. FUNDER, Melbourne, Australia
G. GREENE, Chicago, U.S.A.
K. GRIFFITHS, Cardiff, Wales
B. GRONER, Bern, Switzerland
V. HANSSON, Oslo, Norway
K. B. HORWITZ, Denver, U.S.A.
I. HUHTANIEMI, Turku, Finland
D. R. IDLER, Newfoundland, Canada
V. H. T. JAMES, London, England
J. KATO, Yamanashi-ken, Japan
B. S. KATZENELLENBOGEN, Urbana, U.S.A.
A. M. KAYE, Rehovot, Israel
R. J. B. KING, London, England
F. LABRIE, Quebec, Canada
C. P. LANTOS, Buenos Aires, Argentina
S. LIAO, Chicago, U.S.A.
P. C. MACDONALD, Dallas, U.S.A.
B. S. MCEWEN, New York, U.S.A.
W. L. MCGUIRE, San Antonio, U.S.A.
E. MENINI, Rome, Italy
E. MILGROM, Le Kremlin-Bicêtre, France
W. R. MILLER, Edinburgh, Scotland
T. MULDOON, Augusta, U.S.A.
J. MÜLLER, Zurich, Switzerland
B. E. P. MURPHY, Montreal, Canada
M. NEVES-E-CASTRO, Lisbon, Portugal
M. I. NEW, New York, U.S.A.
A. W. NORMAN, Riverside, U.S.A.
H. OKADA, Kyoto, Japan
M. J. PARKER, London, England
G. PÉREZ-PALACIOS, Mexico City, Mexico
W. B. PRATT, Ann Arbor, U.S.A.
J. P. RAYNAUD, Paris, France
G. ROUSSEAU, Brussels, Belgium
W. T. SCHRADER, Houston, U.S.A.
K. SCHUBERT, Jena, G.D.R.
M. SERIO, Florence, Italy
J. SJÖVALL, Stockholm, Sweden
A. SPÄT, Budapest, Hungary
L. STÁRKA, Prague, Czechoslovakia
C. SUMIDA, Paris, France
J. R. TATA, London, England
W. TAYLOR, Tynemouth, England
P. TUOHIMAA, Tampere, Finland
S. ULICK, New York, U.S.A.
G. VERHOEVEN, Leuven, Belgium
A. VERMEULEN, Ghent, Belgium
R. VIHKO, Oulu, Finland
C. A. VILLEE, Boston, U.S.A.
K. D. VOIGT, Hamburg, F.R.G.
A. E. WAKELING, Macclesfield, England
C. R. WIRA, Hanover, U.S.A.

Publishing Office
Journals Production Unit, Pergamon Press plc, Hennock Road, Marsh Barton, Exeter, Devon EX2 8NE, England
(*Tel.* Exeter (0392) 51558; *Telex* 42749)

Subscription and Advertising Offices
North America: Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523, U.S.A.
Rest of the World: Pergamon Press plc, Headington Hill Hall, Oxford OX3 0BW, England
(*Tel.* Oxford (0865) 64881)

Subscription per annum (1989), *including postage and insurance. Annual institutional subscription rate* (1989) DM 1735.00; *2-year institutional rate* (1989/90) DM 3296.50; *personal subscription rate for those whose library subscribes at the regular rate* (1989) DM 176. *Payments to be made in advance. Prices are subject to amendment without notice.*

Microform Subscriptions and Back Issues: Back issues of all previously published volumes are available direct from Pergamon Press. Back issues of Pergamon journals in microform can be obtained from UMI, 300 North Zeeb Road, Ann Arbor, MI 48106, U.S.A.

Published 18 issues/annum

Copyright © 1988 Pergamon Press plc

It is a condition of publication that manuscripts submitted to this journal have not been published and will not be simultaneously submitted or published elsewhere. By submitting a manuscript, the authors agree that the copyright for their article is transferred to the publisher if and when the article is accepted for publication. However, assignment of copyright is not required from authors who work for organizations which do not permit such assignment. The copyright covers the exclusive rights to reproduce and distribute the article, including reprints, photographic reproductions, microform or any other reproductions of similar nature and translations. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, electrostatic, magnetic tape, mechanical, photocopying, recording or otherwise, without permission in writing from the copyright holder.

Photocopying information for users in the U.S.A.
The Item-fee Code for this publication indicates that authorization to photocopy items for internal or personal use is granted by the copyright holder for libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service provided the stated fee for copying, beyond that permitted by Section 107 or 108 of the U.S. Copyright Law, is paid. The appropriate remittance of $3.00 per copy per article is paid directly to the Copyright Clearance Center Inc., 27 Congress Street, Salem, MA 01970, U.S.A.

Permission for other use
The copyright owner's consent does not extend to copying for general distribution, for promotion, for creating new works or for resale. Specific written permission must be obtained from the publisher for such copying.

The Item-fee Code for this publication is: 0022-4731/88 $3.00 + 0.00

LIST OF CONTENTS

JULY

Editorial	i	
Editorial Addresses	iii	
Steroid Nomenclature	vii	
S. Stoney Simons Jr, Patricia A. Miller, Gertraud Wasner, Nancy R. Miller and Louis Mercier	1	Inverse correlation between dexamethasone 21-mesylate agonist activity and sensitivity to dexamethasone for induction of tyrosine aminotransferase in rat hepatoma cells
Sandra Z. Haslam	9	Acquisition of estrogen-dependent progesterone receptors by normal mouse mammary gland. Ontogeny of mammary progesterone receptors
Tsugio Umehara, Mark L. Graham II, Nicholas J. Berg, Michael M. Lieber and Thomas C. Spelsberg	15	A nuclear binding assay for measurement of biologically active androgen receptors in animal tissues and human prostate cancer
M. Gillner, J. Lund, C. Cambillau, M. Alexandersson, U. Hurtig, Å. Bergman, E. Klasson-Wehler and J.-Å. Gustafsson	27	The binding of methylsulfonyl-polychloro-biphenyls to uteroglobin
Magnus Axelson and Niels J. Christensen	35	Vitamin D metabolism in human pregnancy. Concentrations of free and sulphated 25-hydroxyvitamin D_3 in maternal and fetal plasma at term
Aa. Erichsen, F. O. Levy, S. Golf and V. Hansson	41	A transplantable rat Leydig cell tumor—5. Cellular localization of beta-adrenergic and prostaglandin receptors and their effects on testosterone production
Ylva Hagenfeldt and Håkan A. Eriksson	49	The estrogen receptor in the rat kidney. Ontogeny, properties and effects of gonadectomy on its concentration
Gérard Landemore, Jean-Marie Darbon, Jacques Izard, Francis Bayard and Jean-Charles Faye	57	Presence of low affinity estrogen binding sites in guinea-pig Kurloff cells
Martin Plante, Steven Lapointe and Fernand Labrie	61	Stimulatory effect of synthetic progestins currently used for the treatment of prostate cancer on growth of the androgen-sensitive Shionogi tumor in mice
M. Ayub and M. J. Levell	65	Structure–activity relationships of the inhibition of human placental aromatase by imidazole drugs including ketoconazole
Taira Ohnishi, Akira Wada, Markus Lauber, Toshio Yamano and Mitsuhiro Okamoto	73	Aldosterone biosynthesis in mitochondria of isolated zones of adrenal cortex
Kelvin E. Smith, Shahid Latif, David N. Kirk and Karen A. White	83	Microbial transformations of steroids—I. Rare transformations of progesterone by *Apiocrea chrysosperma*
Sandhya S. Visweswariah and P. Radhakantha Adiga	91	Estrogen modulation of riboflavin carrier protein in the bonnet monkey (*Macaca radiata*)
Marcel Harnik, Yoel Kashman, Shmuel Carmely and Miriam Cojocaru	97	Preparation of 3β,5α-, 3α,5α- and 3α,5β-tetrahydro derivatives of 19-nor-aldosterone by chemical synthesis and microbial bioconversion
Yusuf J. Abul-Hajj and Paul L. Cisek	107	Catechol estrogen adducts
K. Nahoul, L. Dehennin, J. Salat-Baroux and R. Scholler	111	Deoxycorticosterone secretion by the human ovary
Claudia L. Heller, Liliana S. Weisenberg, Eduardo Ortí and Alejandro F. De Nicola	119	Steps of glucocorticoid action in normal and diabetic rat placenta

S. K. Cunningham, S. J. Sequeira, J. Chambers, A. Heffernan and T. J. McKenna 125 Optimisation of total urinary aldosterone estimation: comparison with other laboratory methods for assessment of mineralocorticoid status

Short Communication

Naoki Terakawa, Hiromasa Ikegami, Ikuya Shimizu, Masaki Inoue, Osamu Tanizawa and Keishi Matsumoto 131 Inhibitory effects of danazol and medroxyprogesterone acetate on [^{3}H]thymidine incorporation in human endometrial cancer cells

General Review

M. A. Shaw, P. J. Nicholls and H. J. Smith 137 Aminoglutethimide and ketoconazole: historical perspectives and future prospects

Forthcoming Papers I

AUGUST

Harpal S. Gill, James M. Londowski, Robert A. Corradino, Alan R. Zinsmeister and Rajiv Kumar 147 The synthesis and biological activity of 25-hydroxy-26,27-dimethylvitamin D_3 and 1,25-dihydroxy-26,27-dimethylvitamin D_3: highly potent novel analogs of vitamin D_3

Naoki Terakawa, Ikuya Shimizu, Osamu Tanizawa and Keishi Matsumoto 161 RU486, a progestin antagonist, binds to progesterone receptors in a human endometrial cancer cell line and reverses the growth inhibition by progestins

Jean-Marc Le Goff, Yoland Berthois and Pierre-Marie Martin 167 Radioligand purification prior to routine receptor assays

R. C. Melcangi, F. Celotti, M. Ballabio, A. Poletti, P. Castano and L. Martini 173 Testosterone 5α-reductase activity in the rat brain is highly concentrated in white matter structures and in purified myelin sheaths of axons

W. S. L. Stebbings, Elizabeth Anderson, J. R. Puddefoot, M. J. G. Farthing and G. P. Vinson 181 A hybrid ligand method for androgen receptor measurement

Vera E. Fantl, Dennis Y. Wang and Christopher I. Mockridge 187 Measurement of human corticosteroid binding globulin by enzyme-linked immunoassay

Christopher Longcope, Andrea Femino and J. O'Neal Johnston 195 Androgen and estrogen dynamics in the female baboon (*Papio anubis*)

Robert C. Tuckey, Zorica Kostadinovic and Patricia M. Stevenson 201 Ferredoxin and cytochrome P-450$_{scc}$ concentrations in granulosa cells of porcine ovaries during follicular cell growth and luteinization

Jamie D. Croxtall, Murdoch G. Elder and John O. White 207 Progestin regulation of protein synthesis in endometrial cancer

I. R. Senciall and S. Rahal 213 Progesterone hydroxylation and side chain oxidation to acidic metabolites by the pig

I. Sojo-Aranda, R. Alonso-Uriarte, M. González-Diddi and V. Cortés-Gallegos 219 The biological expression of natural progesterone

D. Ghosh and Jayasree Sengupta 223 Patterns of estrogen and progesterone receptors in rhesus monkey endometrium during secretory phase of normal menstrual cycle and preimplantation stages of gestation

Chandan Chakraborty, Duane L. Davis and Sudhansu K. Dey 231 Characteristics of estrogen-2/4-hydroxylase in pig blastocysts: inhibition by steroidal and nonsteroidal agents

Laurence Dinan 237 The chemical synthesis of ecdysone 22-long-chain fatty acyl esters in high yield

Short Communications

Bo Freyschuss and Håkan Eriksson 247 Evidence for a direct effect of thyroid hormones on the hepatic synthesis of estrogen receptors in the rat

J. Tamm, U. Volkwein and F. Donn 251 The effect of short term treatment with cyproterone acetate or flutamide on the metabolism of 5α-dihydrotestosterone in human testicular tissue

E. R. Barnea, N. J. MacLusky, R. Purdy and F. Naftolin 253 Estrogen hydroxylase activity in the human placenta at term

Forthcoming Papers i

SEPTEMBER

Beverley E. Pearson Murphy 257 Profiles of ligands of sex hormone binding globulin in human serum

Guido Verhoeven, Jean Cailleau and Erik De Clercq 267 Stimulatory effects of antiviral adenosine analogs on steroidogenesis in Leydig cells

Jeffrey M. Harmon, Marian S. Elsasser, Lisa A. Urda and Laura P. Eisen 275 Activation of the human glucocorticoid receptor: evidence for a two-step model

I. Motelica-Heino, M. Castanier, P. Corbier, D. A. Edwards and J. Roffi 283 Testosterone levels in plasma and testes of neonatal mice

Rajeshwar D. Bindal, Kathryn E. Carlson, Benita S. Katzenellenbogen and John A. Katzenellenbogen 287 Lipophilic impurities, not phenolsulfonphthalein, account for the estrogenic activity in commerical preparations of Phenol Red

Yuko Ohara-Nemoto, Takayuki Nemoto, Nobuko Sato and Minoru Ota 295 Characterization of the nontransformed and transformed androgen receptor and heat shock protein 90 with high-performance hydrophobic-interaction chromatography

Russell B. Myers and Tom O. Abney 305 The effects of reduced O_2 and antioxidants on steroidogenic capacity of cultured rat Leydig cells

L. Bornman, H. C. Potgieter and N. Savage 311 Hepatic estrogen-binding proteins in male and female vervet monkeys

Mark E. Brandt, David Puett, Douglas F. Covey and Stephen J. Zimniski 317 Characterization of pregnant mare's serum gonadotropin-stimulated rat ovarian aromatase and its inhibition by 10-propargylestr-4-ene-3,17-dione

Steven G. Bassett and Gerald J. Pepe 325 Uterine metabolism of estradiol *in vivo* during early pseudopregnancy in the rat

N. Blanchouin-Emeric, G. Defaye, R. Toury, V. Vonarx and B. Aupetit 331 The reoxidation of cytochrome P-450 by paraquat inhibits aldosterone biosynthesis from 18-hydroxycorticosterone

Noboru Fukuda, Masanobu Honda and Michinobu Hatano 337 Role of calcium ion in ACTH-induced steroidogenesis in humans

G. M. Pacifici and D. J. Back 345 Sulphation and glucuronidation of ethinyloestradiol in human liver *in vitro*

Nooshine Dayani, Marie T. Corvol, Paul Robel, Bernard Eychenne, Bruno Moncharmont, Lydia Tsagris and Raphaël Rappaport 351 Estrogen receptors in cultured rabbit articular chondrocytes: influence of age

Book Reviews 357

Forthcoming Papers i

OCTOBER (PART A)

G. Parmar, M. G. Elder and J. O. White 359 Oestrogen receptor activation and molecular forms in human breast cancer

John S. Punzi, Debashis Ghosh, Charles M. Weeks, Patrick Van Roey and William L. Duax 365 Crystallization of prostatic binding protein

William C. Okulicz and Wendell W. Leavitt	371	Binding and biologic activity of diethylstilbestrol in the hamster: influence of a serum component on estrogen receptor binding and estrogenic activity
Myra K. Jacobsohn, Victoriea C. Dobre, Christopher Branam and Gert M. Jacobsohn	377	Oxidation of 2-hydroxyestradiol and its incorporation into melanin by mushroom tyrosinase
A. C. Oprins, J. M. Fentener van Vlissingen and M. A. Blankenstein	387	Testicular descent: androgen receptors in cultured porcine gubernaculum cells
Cal Y. Meyers, Vera M. Kolb, George H. Gass, B. Ramanath Rao, Conrad F. Roos and Walter B. Dandliker	393	Doisynolic-type acids—uterotropically potent estrogens which compete poorly with estradiol for cytosolic estradiol receptors
Bruce W. Ennis and Walter E. Stumpf	405	Binding of estrogen and antiestrogen in uterine cell nuclei: *in vivo* autoradiographic studies
B. Marchetti, R. Poulin, M. Plante and F. Labrie	411	Castration levels of plasma testosterone have potent stimulatory effects on androgen-sensitive parameters in the rat prostate
Jennifer A. Quail, Anne-Marie Newcombe and Peter H. Jellinck	421	Inhibition of catechol estrogen formation in rat liver microsomes by hormonal steroids and related compounds
Jean Louis Borgna and Jacqueline Scali	427	Differential inhibition of estrogen and antiestrogen binding to the estrogen receptor by diethylpyrocarbonate
E. Utaaker, S. Lundgren, S. Kvinnsland and A. Aakvaag	437	Pharmacokinetics and metabolism of medroxyprogesterone acetate in patients with advanced breast cancer
P. J. Henly and R. W. Owen	443	The synthesis of glycine conjugated 3-oxo-bile acids
V. Rouiller, M. N. Gangnerau and R. Picon	447	Production of C_{21} steroids in rat fetal ovaries
B. Leroy, E. Maquaire, S. Samperez and P. Jouan	453	Estrogen-like effect of 5-androstene-3β,17β-diol on the induction of fetal thymidine kinase in the rat uterus
Leos G. Kral, Laura M. Doherty and S. C. Brooks	459	Quantitative determination of nuclear estrogen receptors by an enzyme immunoassay: applicability and caveats
Catharina J. Th. Couwenbergs	467	Acute effects of drinking beer or wine on the steroid hormones of healthy men
Short Communication		
James C. Melby, Monika Holbrook, Mary Ellen Ehlers, Kwabena Kyei-Aboagye, Kenneth Edelin, F. Aladar Bencsath, Frank Field and George T. Griffing	475	Identification of 19-hydroxy-progesterone in human placenta
Book Reviews	479	
Forthcoming Papers	i	
Announcement	ii	

OCTOBER (PART B)

ANTI-STEROIDS

Proceedings of a Satellite Symposium of the Seventh International Congress on Hormonal Steroids

Preface	v	
W. L. Duax, J. F. Griffin, C. M. Weeks and Z. Wawrzak	481	The mechanism of action of steroid antagonists: insights from crystallographic studies

Lawrence B. Hendry	493	Stereochemical complementarity of DNA and steroid agonists and antagonists
Jean-François Miquel and Jacques Gilbert	525	A chemical classification of nonsteroidal antagonists of sex-steroid hormone action
Raymond McCague, Michael Jarman, On-Tai Leung, Allan B. Foster, Guy Leclercq and Susanna Stoessel	545	Non-isomerisable antiestrogens related to tamoxifen
G. Teutsch, T. Ojasoo and J. P. Raynaud	549	11β-substituted steroids, an original pathway to antihormones
H. J. Kloosterboer, G. H. J. Deckers, M. J. van der Heuvel and H. J. J. Loozen	567	Screening of anti-progestagens by receptor studies and bioassays
Kathryn B. Horwitz	573	Purification, monoclonal antibody production and structural analyses of human progesterone receptors
T. C. Spelsberg, T. Ruh, M. Ruh, A. Goldberger, M. Horton, J. Hora and R. Singh	579	Nuclear acceptor sites for steroid hormone receptors: comparisons of steroids and antisteroids
Jan Carlstedt-Duke and Jan-Åke Gustafsson	593	Functional probing of glucocorticoid receptor structure
Allan Munck and Nikki J. Holbrook	599	Cyclic, nonequilibrium models of glucocorticoid antagonism: role of activation, nuclear binding and receptor recycling
P. Formstecher, P. Lefebvre and M. Dautrevaux	607	RU 486 stabilizes the glucocorticoid receptor in a non-transformed high molecular weight form in intact thymus cells under physiological conditions
J. R. Pasqualini, C. Sumida and N. Giambiagi	613	Pharmacodynamic and biological effects of anti-estrogens in different models
A. E. Wakeling and J. Bowler	645	Novel antioestrogens without partial agonist activity
C. Chouvet, E. Vicard, L. Frappart, N. Falette, M. F. Lefebvre and S. Saez	655	Growth inhibitory effect of 4-hydroxy-tamoxifen on the BT-20 mammary cancer cell line
Catherine B. Lazier and Bharati V. Bapat	665	Antiestrogen binding sites: general and comparative properties
Daniel J. Weiss and Erlio Gurpide	671	Non-genomic effects of estrogens and antiestrogens
S. Zoppi, M. Cocconi, M. J. Lechuga, E. Messi, M. Zanisi and M. Motta	677	Antihormonal activities of 5α-reductase and aromatase inhibitors
Helmut Schröder, Marianne Ziegler and M. Fathy El Etreby	685	Aromatase-inhibitors of the androstenedione-type activate the 17β-hydroxysteroid-dehydrogenase in the rat testis tissue suspension model
G. G. Rousseau, C. F. Rolin Jacquemyns, D. A. N. Sirett, M. Huybrechts, J. L. De Coen and J. I. Quivy	691	Inhibition of steroid–protein interactions by dicyclohexane derivatives
M. Moguilewsky and M. M. Bouton	699	How the study of the biological activities of antiandrogens can be oriented towards the clinic
Sydney A. Shain and Rachel I. Huot	711	Antiandrogen effects in models of androgen responsive cancer
Moïse Namer	719	Clinical applications of antiandrogens
B. Ramanath Rao, H. J. de Voogt, A. A. Geldof, L. J. G. Gooren and F. G. Bouman	731	Merits and considerations in the use of anti-androgen
Bernard Waeber, Jurg Nüssberger and Hans R. Brunner	739	Clinical applications of antimineralocorticoids
Announcement	I	

NOVEMBER

Editorial	i	
A. I. Coffer and R. J. B. King	745	Characterization of p29, an estrogen-receptor associated tumor marker
G. Emons, H.-G. Hoffmann, C. Brack, O. Ortmann, R. Sturm, P. Ball and R. Knuppen	751	Modulation of gonadotropin-releasing hormone receptor concentration in cultured female rat pituitary cells by estradiol treatment
M. Sluyser, A. W. M. Rijkers, C. C. J. de Goeij, M. Parker and J. Hilkens	757	Assignment of estradiol receptor gene to mouse chromosome 10
Benoit Cypriani, Christiane Tabacik, Bernard Descomps and André Crastes de Paulet	763	Role of estrogen receptors and antiestrogen binding sites in an early effect of antiestrogens, the inhibition of cholesterol biosynthesis
P. K. Ghosh and N. M. Biswas	773	The role of alpha-2u-globulin in corticosteroidogenesis in male rats
Michael M. Miller, Cliff Hurd and V. K. Moudgil	777	Transformation of human progesterone receptor in the presence of the progestin (R5020) and the antiprogestin (RU486)
James L. Thomas, Ebenezer A. Berko, Anthony Faustino, Richard P. Myers and Ronald C. Strickler	785	Human placental 3β-hydroxy-5-ene-steroid dehydrogenase and steroid 5 $\rightarrow$ 4-ene-isomerase: purification from microsomes, substrate kinetics, and inhibition by product steroids
Chaiyod Bunyagidj and John A. McLachlan	795	Catechol estrogen formation in mouse uterus
Akira Wada, Taira Ohnishi, Yasuki Nonaka and Mitsuhiro Okamoto	803	Inhibition of bovine adrenocortical mitochondrial cytochrome P-$450_{11\beta}$-mediated reactions by imidazole derivatives and mineralocorticoid analogs
M. Brönnegård and S. Okret	809	Characterization of the glucocorticoid receptor in fetal rat lung during development: influence of proteolytic activity
Chr. Eckhoff, W. Oelkers and V. Bähr	819	Effects of two oral antimycotics, ketoconazole and fluconazole, upon steroidogenesis in rat adrenal cells *in vitro*
S. J. Lan, L. M. Scanlan, J. Mitroka, S. H. Weinstein, B. N. Lutsky, C. A. Free, R. J. Wojnar, R. C. Millonig and B. H. Migdalof	825	Rapid metabolic inactivation of tipredane, a structurally novel topical steroid
Zion Shalem, Mordechai Izhar, Laurence S. Shore, Mordechai Shemesh, William Hansel and J. F. Strauss III	835	Control of bovine placental progestin synthesis: calcium dependent steroidogenesis is modulated at the site of the cholesterol side chain cleavage enzyme
R. Picon, D. Darmoul, V. Rouiller and L. Duranteau	839	Activity of 3β-hydroxysteroid dehydrogenase/isomerase in the fetal rat ovary
I. A. Luthy, D. J. Begin and F. Labrie	845	Androgenic activity of synthetic progestins and spironolactone in androgen-sensitive mouse mammary carcinoma (Shionogi) cells in culture
Satoru Watanabe, Taiichi Saito and Mitsunori Ikeda	853	Conformational study of the acetyl group and cyclohexenone in progesterone interacting with phosphatidyllipid by means of circular dichroism
N. Mounib, Ch. Sultan, J. Bringer, B. Hedon, J. C. Nicolas, P. Cristol, N. Bressot and B. Descomps	861	Correlations between free plasma estradiol and estrogens determined by bioluminescence in saliva, plasma, and urine during spontaneous and FSH stimulated cycles in women
Preliminary Note		
Fumikazu Mukawa, Tetsuro Suzuki, Masahiro Ishibashi and Fujiko Yamada	867	Estrogen and androgen receptor binding affinity of 10β-chloro-estrenen derivatives

Book Review	871	
Forthcoming Papers	I	
Announcement	II	

DECEMBER

K. Alexandre, J. Rooryck and P. Galand	873	Dissociation by colchicine of the wet weight and the cGMP responses to estradiol in immature rat uterus
Eric Bignon, Michel Pons, Jacques Gilbert and André Crastes de Paulet	877	Analogies and differences in the modulation of progesterone receptor induction and cell proliferation by estrogens and antiestrogens in MCF-7 human breast cancer cells: study with 24 triphenylacrylonitrile derivatives
Peter H. Jellinck and Anne-Marie Newcombe	887	Differential effect of Cu^{2+} and Zn^{2+} on the formation and further metabolism of catechol estrogen by rat liver microsomes
Christine Kappler, Mohamed Kabbouh, Charles Hetru, Francis Durst and Jules A. Hoffman	891	Characterization of three hydroxylases involved in the final steps of biosynthesis of the steroid hormone ecdysone in *Locusta migratoria* (Insecta, Orthoptera)
Günter Vollmer, Ingrid Bindewald, Ute Meyn, Winfried O. Wünsche, Hans Arnholdt and Rudolf Knuppen	899	An improved micromethod for the determination of biochemically active estrogen and progesterone receptors in parallel to comparative histological examination of a single piece of tissue
Thomas Ratajczak, Mark Comber and Roland Hähnel	909	Structural characterization of the 9–10S estradiol receptor from calf uterus
Didier Gagne, Mustapha Labhilili and Michel Pons	917	Description and analysis of differential sensitivity to glucocorticoids in FAO cells
H. J. M. Goverde, E. M. Aarden, L. A. Bastiaans, C. M. G. Thomas and R. Rolland	927	Inverse relationship between steroid concentration and volume in preovulatory follicles of the golden hamster
Willem de Boer and Joan Bolt	931	Transformation (4S to 5S) of the nuclear estrogen receptor is reversible but not accompanied by a change in the affinity for DNA
Ch. Hanquez, K. M. Rajkowski, B. Desfosses and N. Cittanova	939	A competitive microtitre plate enzyme immunoassay for plasma aldosterone using a monoclonal antibody
C. O. Watlington, J. L. Atkins, J. S. McNeil, W. M. Grogan and J. P. Johnson	947	Corticosterone is converted to 6β-hydroxycorticosterone in rat: effects of the metabolite on urinary electrolyte excretion
G. Turcotte, A. Chapdelaine and S. Chevalier	955	Multiple binding components for methyltrienolone in canine prostatic epithelial cells
D. Lacoste, R. St-Arnaud, S. Caron, A. Belanger and F. Labrie	963	The rise in testicular androgens during the first days of treatment with an LHRH agonist in the dog can be blocked by aminoglutethimide or ketoconazole
Günter Blaich and Manfred Metzler	971	Effect of pretreatment of male Syrian golden hamsters with 7,8-benzoflavone and with diethylstilbestrol on P-450 isoenzyme activities and on microsomal diethylstilbestrol metabolism
Lynette M. Muller and George Phillipou	979	Urinary 5α-androstane-3α,17β-diol levels in normal and hirsute women: discriminating power and relation to other urinary steroids
E. V. YoungLai and A. Borgmann	983	Changes in 3β-hydroxysteroid dehydrogenase activity in the developing rabbit ovary
P. E. Juniewicz, S. Pallante Morell, A. Moser and L. L. Ewing	987	Identification of phytoestrogens in the urine of male dogs
D. Micic, V. Popovic, M. Nesovic, M. Sumarac, M. Dragasevic, A. Kendereski, D. Markovic, P. Djordjevic, D. Manojlovic and J. Micic	995	Androgen levels during sequential insulin euglycemic clamp studies in patients with polycystic ovary disease

Forthcoming Papers I

Announcement II